REMARKS

The Examiner's withdrawal of rejections based upon Gordinier is gratefully acknowledged. Claims 8, 10, and 50 have been amended. Support for the amendments is found in the existing claims as discussed below. Accordingly, the amendments do not constitute the addition of new matter. Applicant respectfully requests the entry of the amendments and reconsideration of the application in view of the amendments and the following remarks.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 8, 10, and 46-50 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This ground of rejection is addressed by amendment of claims 8 and 10.

Applicant has amended claims 8 and 10 to clarify that there is no exogenous activator added to the composition for dermatological application or to the PRP composition.

Specifically, the phrase "and is combined with a component chosen from collagen, cultured cells, and mixtures thereof" has been deleted from claim 10. The Examiner states correctly that collagen is an activator of platelets which is inconsistent with the recitation in claim 8 that "the composition is prepared without adding an exogenous activator".

Furthermore, claim 8 has been amended to clarify that both the PRP composition and the composition for dermatological application are prepared without an activator. Therefore, the final dermatological composition contains no activator. Furthermore, the final composition which is prepared without an activator is the same composition as in the preamble, that is "the composition for dermatological application". The present claims are now directed to embodiments in which no exogenous activator is added to the composition at any step.

Upon review of the claims in light of the amendments to claim 8, claim 50 has been amended to clarify that the "composition" is the "PRP composition".

In view of Applicant's amendments and comments, reconsideration and withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 102(b)

Claims 8 and 10 are rejected under 35 U.S.C. § 102 (b) as being anticipated by US 2003/0175248 (Uhr).

Reconsideration is requested in view of the amendments and the comments below.

Uhr teaches a composition that contains PRP and a calcium composite such as a β-tricalcium phosphate such as Cerasorb® (see paragraph 0005 of Uhr).

The calcium composite of Uhr is not a "skin permeation enhancer" as per the claimed invention. Calcium composites such as Cerasorb® are used in bone graft and in dental work (see attached product description, Attachment A) and have no use as a skin permeation enhancer. In fact, the Material Safety Data Sheet (Attachment B) indicates that the product is inert to skin (item 4.2 and 8.3.4).

The Office Action indicates that paragraph 0010 of Uhr teaches a "skin permeation enhancer" (page 3 of Office Action). However, paragraph 0010 merely describes resuspension of the cake which contains the platelets, with some of the plasma to make the platelet-rich plasma. Paragraph 0010 does not teach a skin permeation enhancer.

Furthermore, the calcium in the composite material would act as a platelet activator. As indicated in Applicant's specification, calcium is a platelet activator (see paragraphs 0072-0073 and 0075 of the published application 2007/0110737; or page 16, paragraphs 0068-0069 and page 17, paragraph 0071 of the specification as filed). The claims have now been amended to state clearly that no exogenous activator is added.

In view of Applicant's amendments and arguments, reconsideration and withdrawal of the above ground of rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 8, 10, and 46-50 are rejected under 35 U.S.C. § 103(a) as being unpatentable over 2003/0175248 (Uhr), US 5,993,804 (Read, et al.) and US 5,733,571 (Sackler).

As discussed above, Uhr does not teach all of the elements of the claimed platelet composition. Furthermore, the composition for dermatological use of the claimed invention is not suggested by Uhr.

Uhr do not teach a "skin permeation enhancer". Paragraph 0010, which the Examiner refers to for this teaching, merely teaches the resuspension of the cake containing the thrombocytes/platelets in a small amount of the plasma to create the "platelet-rich plasma". The platelets have been isolated from the plasma by centrifugation. A small amount of the plasma is then used to make a concentrated solution containing the platelets. There is no teaching here of a skin permeation enhancer.

Furthermore, the calcium composite taught by Uhr cannot be considered a skin permeation enhancer. As indicated by the Attachments (A & B), "Cerasorb®" which is a commercially available product corresponding to the β-tri-calcium phosphate of Uhr, is used as a bone graft or dental graft material and is inert to skin. Additionally, the calcium material of Uhr may be considered an exogenous activator which is specifically excluded by the claims.

Accordingly Uhr does not teach the claimed composition. These deficiencies are not rectified by Read and/or Sackler.

Read, et al. teach treatment of wounds, not skin. Accordingly, Read, et al. have no need of a skin permeation enhancer as claimed. Read, et al. further differ from the claimed invention in teaching lyophilized platelets, not PRP.

The Examiner states that Read, et al. (US 5993804) teach combining solid support material including adhesives with platelet-containing compositions for topical application and healing skin wounds (Office Action, page 5, paragraph 3). However, as stated above, Read, et al. teach treatment of wounds, not skin. As stated in Read, et al. platelets are prepared "so that they release platelet-derived growth factor after stimulation and/or spreading (e.g., after receiving a physiological stimulation which would ordinarily cause a metaabolically [sic] active, live or fresh platelet to release its granular contents, such as contacting wounded tissue)". That is, activation occurs upon contact of the platelet preparation with the wound. In contrast, in the presently claimed invention the PRP composition plus permeation enhancer is applied to skin. While one of ordinary skill in the art would expect activation to occur on the surface of a wound, it is not predictable that PRP applied to skin with a skin permeation enhancer would be activated without resort to an exogenous activator.

The Office Action states that Sackler (US 5,733,571) is relied upon to demonstrate that use of transdermal patches is well known for delivery of medicinal agents and that methods of

preparing transdermal patches include steps of combining components including permeable membrane, impermeable membranes and adhesives with an active agent delivery matrix (Office Action, page 5, second to last paragraph).

Sackler merely teaches a transdermal patch and does not remedy the deficiencies of Uhr and Read, et al. Sackler teaches the construction of a transdermal patch. There is no teaching in either Uhr or Read, et al that would guide one of ordinary skill in the art to prepare a transdermal patch containing PRP including a skin permeation enhancer but without an activator.

In view of Applicant's amendments and arguments, reconsideration and withdrawal of the above ground of rejection is respectfully requested.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

CONCLUSION

In view of Applicants' amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: April 29, 2010

By: _____

Che Swyden Chereskin, Ph.D.
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ATTACHMENT A

Cerasorb® M DENTAL

Resorbable, pure-phase beta-tricalcium phosphate matrix with interconnecting porosity for bone regeneration for use in dental and maxillofacial surgery

DESCRIPTION:
Cerasorb M DENTAL is a sterile, synthetic, multi-porous biocompatible ceramic matrix in granular form for filling bone defects. The material with micro-, meso- and macropores in a range of 0.1-500 µm supports rapid ossification with local bone, thus accelerating the resorption process. With its phase purity of ≥99%, the ceramic material complies with US standard specification ASTM F 1088-04. The validated manufacturing process guarantees batch conformity and reproducibility.
Cerasorb M DENTAL is available in different sizes (50-150 µm, 150–500 µm, 500-1000 µm, 1000–2000 µm) as polygonal granules that are suited for specific applications.
Techniques for surgical placement of Cerasorb M DENTAL are equivalent to similar operations using particulate bone grafts.

PROPERTIES/ACTIONS:
The Cerasorb M DENTAL ceramic matrix creates a network of large, smoothly interconnected pores (total porosity of approx. 65 vol. %). A ceramic material of this porosity ensures optimal resorption to encourage rapid bone regeneration.
In contact with vital bone, the material is resorbed and simultaneously replaced by new bone. As a synthetic, bioactive ceramic material, Cerasorb M DENTAL has excellent intra- and extra-osseous tissue compatibility and is neither locally nor systemically toxic. Potential risks of allergenic reactions or infections that may result from materials of biological origin do not exist.
Cerasorb M DENTAL is gamma sterilized, comes in double sterile packaging and is for single use only.
Cerasorb M DENTAL is radiopaque from its mineralogical density, so its status can be monitored regularly.

INDICATIONS AND USAGE:
Cerasorb M DENTAL is recommended for:

- Augmentation or reconstructive treatment of the alveolar ridge.
- Filling of infrabony periodontal defects.
- Filling of defects after root resection, apicoectomy, and cystectomy.
- Filling of extraction sockets to enhance preservation of the alveolar ridge.
- Elevation of the maxillary sinus floor.
- Filling of periodontal defects in conjunction with products intended for Guided Tissue Regeneration (GTR) and Guided Bone Regeneration (GBR).
- Filling of peri-implant defects in conjunction with products intended for Guided Bone Regeneration (GBR).

The placing of dental implants after bone augmentation with Cerasorb M DENTAL is possible. Prior to placing the implant, verification needs to be provided that sufficient

new bone was formed to provide a stable implant bed. This verification should be performed using appropriate medical measures, such as radiography.
The size of the defect to be filled determines the choice of the granular size of Cerasorb M DENTAL to be used.

INSTRUCTIONS FOR USE:

- Cerasorb M DENTAL must only be employed by or under the supervision of medical professionals with experience in the required surgical techniques and the use of biomaterials. The exact operating procedure depends on the location, type and size of the defect.
- To prepare the graft bed, bone fragments and necrotic tissue must be carefully removed before applying Cerasorb M DENTAL. Direct contact with perfused vital bone is important for its function as a bone regeneration material and, therefore, a thorough freshening of the bone surface before applying the granules is obligatory.
- The selection of granule size depends on the size of the defect to be filled. For bone regeneration to succeed with Cerasorb M DENTAL, the granules must be mixed with the patient's fresh blood from the defect region before application to the defect. In addition, the patient's PRP (Platelet-Rich-Plasma) may be admixed. It contains a high concentration of growth factors that promote angiogenesis and wound healing. For large defects Cerasorb M DENTAL can be admixed with autogenous spongiosa of comparable size.
- The bone defect must be completely filled. Strong compacting or destruction of granule structure (e. g., by crushing) must be avoided. The porous structure of the ceramic makes it possible for the bone cells and blood vessels to grow into the granule matrix, which is completely resorbed and simultaneously substituted by the patient's local bone.
- Overfilling must be avoided to allow for a tension-free closure.
- The mucoperiosteal flaps can be sutured to achieve primary closure and to minimize particle loss. In some cases the surgeon may want to place a surgical dressing or membrane over the wound. In cases of larger defect surfaces the user must decide on the use of a membrane.
- For endosseous dental implants a time interval of 4 - 6 months should pass between defect filling with Cerasorb M DENTAL and placing of the implant. In the case of a sinus lift, it may be necessary to wait somewhat longer (even 9-12 months) depending on the patient and the radiological findings.

CONTRAINDICATIONS:

Bone grafting should not be considered for patients where general oral surgery is contraindicated (e. g. infection at the site of grafting).

The use of Cerasorb M DENTAL should be avoided in cases of all diseases or therapies which adversely affect the healing of the defect, e. g.

- Acute and chronic infections in the operating area (e.g. soft tissue infections; inflamed, bacterial bone diseases; osteomyelitis).
- Severe metabolic diseases, such as non- or poorly controlled diabetes mellitus

- Disorders of calcium metabolism or treatment by pharmaceuticals interfering with calcium metabolism
- Treatment with steroids, antineoplastic drugs, immunosuppressives, high dose glucocorticoids,
- Endocrinological bone diseases
- Severe renal dysfunction, severe liver disease
- Vascular impairment

Despite the presence of some of the listed circumstances, the use of Cerasorb M DENTAL may be the best solution for rectifying bone defects. The patient must be duly informed of the possible effects of these complicating circumstances on the anticipated success of using Cerasorb M DENTAL.

PRECAUTIONS:
Cerasorb M DENTAL must be mixed with the patient's fresh blood. It must not be applied dry to the defect and must not be soaked in aqueous solutions (e.g., physiological NaCl or antibiotics).

If desired, combine the Cerasorb M DENTAL/autologous blood mixture with PRP.
In large defects a mixture of autogenous bone or bone marrow may improve the formation of new bone.

The use of a membrane is recommended in cases where the defect is large or limited bony retention is present. A primary closure of defects, preferably tension free, is highly recommended.

Caution: granule sizes greater than 800 µm should not be used for periodontal applications.

ADVERSE REACTIONS:
No adverse reactions have been reported.

INTERACTIONS:
No interactions between Cerasorb M DENTAL and pharmaceuticals or other medical devices have so far been reported.

HANDLING/STABILITY:
Cerasorb M DENTAL must be stored dry in its outer carton at room temperature.

Cerasorb M DENTAL is supplied as a radiation sterilized product in double sterile packages (glass vials in blisters). The medical device must not be used if the blister is visibly damaged. Check that the blister is intact by applying gentle, even pressure.
Cerasorb M DENTAL must not be resterilized.

Cerasorb M DENTAL must not be used after the expiration date on the container.

HOW SUPPLIED:

Package sizes / Granule sizes	5 x 0.5 cc	5 x 1.0 cc	5 x 2.0 cc	1 x 5.0 cc	1 x 10.0 cc
150–500 µm	+				
500–1000 µm	+	+	+		
1000–2000 µm	+	+	+	+	+

+ = pack sizes available

CAUTION: Federal law restricts this device to sale by or on the order of a licensed dentist or physician.

Symbols	
STERILE R	Sterilization by radiation
	For single use only
LOT	Batch number
	Expiry date
or	Refer to the instruction leaflet

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P.O. Box 12339, Research Triangle Park, NC 27709-2339, USA
Toll-free 1-888-237-2767 (888-CERASORB)

Information date
1. June 2005

Printing date: <e.g., 12/02>
CEMD000GUS.01

ATTACHMENT B

MATERIAL SAFETY DATA SHEET

RIEMSER, Inc.

Date: 5-1-2009 Page 1 of 2 Product name: **Cerasorb® M**
Version: 001
Manufacturer: Curasan AG REF: 05-09US

1.	**Product and company**	
	Name of product:	Cerasorb M®
	Manufacturer:	Curasan AG
	Address:	Lindigstrasse 4, D-63801 Kleinostein, GERMANY
	Telephone:	+49 6027 40900 0
	Telefax:	+49 6027 40900 29
	Advice:	Customer Service
	Emergency advice:	RIEMSER, Inc.
	Telephone:	919-941-9770
	Telefax:	919-941-9775
	Supplier/Distributor:	RIEMSER, Inc.
	Address:	1009 Slater Road Suite 450, Durham, NC 27703
	Telephone:	919-941-9770
	Fax:	919-941-9775
	MSDS preparation date:	5-1-2009
	MDSS prepared by:	RIEMSER, Inc.
2.	**Composition / information on ingredients**	
2.1	**Chemical characterization:**	β-Tricalcium Phosphate
2.2	**Hazardous ingredients:**	None
3.	**Special hazards information**	The product is a medical device, which is implanted directly into the body. There is no danger resulting from the substance.
4.	**First aid measures:**	
4.1	**In case of eye contact:**	Rinse open eye for several minutes under running water.
4.2	**In case of skin contact:**	The product does not irritate the skin.
4.3	**In case of ingestion:**	If symptoms persist, consult doctor.
4.4	**In case of inhalation:**	If symptoms persist, consult doctor.
4.5	**Other first aid information**	None
5.	**Fire-fighting measures**	
5.1	**Suitable extinguishing material:**	N.A.
5.2	**Extinguishing material that may not be used for safety:**	N.A.
5.3	**Special protective equipment for fire-fighters:**	N.A.
5.4	**Additional information:**	No special precautions and measures necessary
6.	**Accidental release measures**	
6.1	**Personal precautions:**	No special measures required.
6.2.	**Environmental precautions:**	No special measures required. Material is usable as fertilizer.
6.3	**Methods for cleaning up / taking up:**	Pick up with customary cleaning equipment (broom) and dispose of with domestic and organic waste.
6.4	**Additional information:**	The product does not release any dangerous substances.
7.	**Handling and storage**	
7.1	**Advice on safe handling:**	No special handling required.
7.2	**Storage:**	Store in outer carton, at room temperature in dry space with no direct sunlight.
8.	**Exposure controls / personal protection**	
8.1	**Additional advice on system design:**	The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
8.2	**Occupational exposure limits to be monitored :**	No special control measures necessary.
8.3	**Personal protection:**	Not required.

8.3.1	**Respiratory protection**	Not required.
8.3.2	**Hand protection**	Not required.
8.3.3	**Eye protection**	Not absolutely necessary.
8.3.4	**Skin protection**	Not required.
8.3.5	**Protective and hygiene measures**	Not required.
9.	**Physical and chemical properties**	
9.1	**Form:**	Granular / powder form
9.2	**Color:**	White
9.3	**Odor:**	Odorless
9.4	**Melting point:**	Approx. 1600 °C
9.5	**Boiling point:**	No information.
9.6	**Density:**	At 20°C : 0.5-1.9g/cm3 depending on the degree of porosity and on the product form.
9.7	**Solubility in water:**	0.044 g/l at pH 7 and 37 °C
10.	**Stability and reactivity**	
10.1	**Conditions to avoid:**	No decomposition, when the product is stored and handled properly.
10.2	**Materials to avoid:**	N.A.
10.3	**Hazardous decomposition products:**	None.
10.4	**Additional information:**	
11.	**Toxicological information**	N.A.
12.	**Ecological information**	Cerasorb® is a mineral, biodegradable compound that is harmless when released into the environment
13.	**Disposal considerations**	Small quantities can be disposed of with domestic waste.. Disposal of packaging according to the local and national legislation.
14.	**Transport information**	Hazardous Materials Regulations do not apply
15.	**Regulatory information**	N.A.
16.	**Other information**	Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of hazard communication program including labeling, material safety data sheets, training, and access to written records. We request that you, and it is your legal duty to, make all information in this MSDS available to your employees. IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESSED OR IMPLIED, IS MADE REGARDING PERFOMANCE, SUITABILITY, STABILITY OR OTHERWISE. The information included herein is not intended to be all-inclusive as to the appropriate manner and/or conditions of use, handling, and/or storage. Factors pertaining to certain conditions of storage, handling, or use of this product may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended to and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any laws, rules, regulations, or ordinances of any governmental entity.